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> d his

     (FILE 'HOME' ENTERED AT 15:35:07 ON 21 FEB 2003)

     FILE 'MEDLINE' ENTERED AT 15:35:15 ON 21 FEB 2003
L1         20564 S OPTIC NERVE
L2          2831 S PHOTOSENSITI? AGENT
L3         12945 S PHOTOSENSITI?
L4        823335 S AGENT
L5        115202 S IRRADIAT?
L6         73088 S LASER
L7             0 S L1 (S) L3 (S) L4 (S) L5 (S) L6
L8             0 S L1 (L) L3 (L) L4 (L) L5 (L) L6
L9            66 S L2 (S) L6
L10            0 S L2 (S) L6 (S) L1
L11            0 S L9 (L) L1
L12            0 S L9 AND L1 AND L6 AND L5
L13            0 S L9 AND L1 AND L6

     FILE 'PCTFULL, USPATFULL, CAPLUS' ENTERED AT 15:39:02 ON 21 FEB 2003

     FILE 'PCTFULL, USPATFULL, CAPLUS, MEDLINE, SCISEARCH' ENTERED AT 15:39:16
     ON 21 FEB 2003
L14            1 S L7
L15           22 S L8
L16           22 DUP REM L15 (0 DUPLICATES REMOVED)
L17            9 S L16 NOT PY >1999

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L Number	Hits	Search Text	DB	Time stamp
1	629	photosensitiz$ ADJ agent	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:57
7	856	photosensitiz$ NEAR agent	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:57
13	2	irradiat$ near optic ADJ nerve	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:58
19	395968	irradiat$	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:58
25	603565	laser	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:58
31	181251	optic	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:59
37	32776	anterior	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:59
43	2675	optic NEAR nerve	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:59
49	1	(photosensitiz$ NEAR agent) same irradiat$ same laser same (optic NEAR nerve)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:59
55	6	(photosensitiz$ NEAR agent) AND irradiat$ AND laser AND (optic NEAR nerve)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 15:09
61	6	(photosensitiz$ NEAR agent) AND irradiat$ AND laser AND (optic NEAR nerve)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 15:44
67	2264	bernstein$.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 15:45
73	1	(photosensitiz$ ADJ agent) and bernstein$.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 15:46
79	2	("5145863").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 15:46

L Number	Hits	Search Text	DB	Time stamp
1	629	photosensitiz$ ADJ agent	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:57
7	856	photosensitiz$ NEAR agent	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:57
13	2	irradiat$ near optic ADJ nerve	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:58
19	395968	irradiat$	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:58
25	603565	laser	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:58
31	181251	optic	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:59
37	32776	anterior	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:59
43	2675	optic NEAR nerve	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:59
49	1	(photosensitiz$ NEAR agent) same irradiat$ same laser same (optic NEAR nerve)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:59
55	6	(photosensitiz$ NEAR agent) AND irradiat$ AND laser AND (optic NEAR nerve)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 15:09
61	6	(photosensitiz$ NEAR agent) AND irradiat$ AND laser AND (optic NEAR nerve)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 15:44
67	2264	bernstein$.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 15:45
73	1	(photosensitiz$ ADJ agent) and bernstein$.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 15:46
79	2	("5145863").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 17:06
85	747	(optic NEAR nerve) and laser	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 17:07

91	161	(optic NEAR nerve) same laser	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 17:08
97	1	(optic NEAR nerve) same laser same (photosensitiz$ ADJ agent)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 17:07
103	1	((optic NEAR nerve) same laser) and (photosensitiz$ ADJ agent)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 17:07
109	4	(optic NEAR nerve) near laser	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 17:15
115	761121	"500" or "600" ADJ micron	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 17:12
121	14260	("500" or "600" ADJ micron) same laser	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 17:13
127	350	("500" or "600" ADJ micron) NEAR laser	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 17:14
133	0	(("500" or "600" ADJ micron) NEAR laser) same (optic NEAR nerve)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 17:14
139	0	(("500" or "600" ADJ micron) NEAR laser) and (optic NEAR nerve)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 17:14
145	2	("6479053").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 17:15
151	0	("l127 and l145").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 17:16
157	0	(("6479053").PN.) and ("500" or "600" ADJ micron)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 17:16

L Number	Hits	Search Text	DB	Time stamp
1	629	photosensitiz$ ADJ agent	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:57
7	856	photosensitiz$ NEAR agent	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:57
13	2	irradiat$ near optic ADJ nerve	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:58
19	395968	irradiat$	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:58
25	603565	laser	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:58
31	181251	optic	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:59
37	32776	anterior	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:59
43	2675	optic NEAR nerve	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:59
49	1	(photosensitiz$ NEAR agent) same irradiat$ same laser same (optic NEAR nerve)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 14:59
55	6	(photosensitiz$ NEAR agent) AND irradiat$ AND laser AND (optic NEAR nerve)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 15:09
61	6	(photosensitiz$ NEAR agent) AND irradiat$ AND laser AND (optic NEAR nerve)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/02/21 15:09

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5145863		19920908
APPLICATION INFO.:	US 1990-624410		19901204 (7)
DISCLAIMER DATE:	20070612		

RELATED APPLN. INFO.: Division of Ser. No. US 1989-352774, filed on 16 May 1989, now patented, Pat. No. US 5028681 which is a continuation-in-part of Ser. No. US 1986-889829, filed on 24 Jul 1986, now patented, Pat. No. US 4866168 which is a continuation-in-part of Ser. No. US 1986-889917, filed on 24 Jul 1986, now abandoned which is a division of Ser. No. US 1984-609991, filed on 19 May 1984, now patented, Pat. No. US 4649151 which is a continuation-in-part of Ser. No. US 1983-481345, filed on 1 Apr 1983, now abandoned which is a continuation-in-part of Ser. No. US 1982-424647, filed on 27 Sep 1982, now abandoned

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Raymond, Richard L.
LEGAL REPRESENTATIVE: Morrison & Foerster
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 24 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT: 1437
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB To obtain tumor-selective, photosensitizing drugs useful in the localization of neoplastic tissue and treatment of abnormal neoplastic tissue such as tumors, one of two methods is used. In the first method, a hydrolyzed mixture of the products of reaction of hematoporphyrin with acetic acid and sulfuric acid is cycled through a microporous membrane system to exclude low molecular weight products. In the second method, drugs are synthesized or derived from other pyrrole compounds. The drugs: (1) include two covalently bound groups, each with four rings, some of which are pyrroles such as phlorins, porphyrins, chlorins, substituted pyrroles, substituted chlorins or substituted phlorins, each group being arranged in a ring structure, connected covalently to another group and have a triplet energy state above 37.5 kilocalories per mole; (2) are soluble in water, forming an aggregate of over 10,000 molecular weight in water and have an affinity for each other compared to serum protein such that 10 to 100 percent remain self aggregated in serum protein; and (3) are lipophyllic and able to disaggregate and attach to cell plasma, nuclear membrane, mitochondria, lysosomes and tissue. The drug obtained by the first method has an empirical formula of approximately C.sub.68 H.sub.70 N.sub.8 O.sub.11 or C.sub.68 H.sub.66 N.sub.8 O.sub.11 Na.sub.4. Neoplastic tissue retains the drug after it has cleared normal tissues and illumination results in necrosis. Moreover, other photosensitizing materials may be combined with a carrier that enters undesirable tissues and cells of the reticular endothelial system such as macrophages. These photosensitizing materials: (1) must have a triplet energy state above 3.5 kilocalories per mole; (2) cannot be easily oxidized; and (3) not physically quench any required energy state. Preferably, this photosensitizing material should be lipophlic.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 4 OF 9 USPATFULL

ACCESSION NUMBER: 91:52560 USPATFULL
TITLE: Drugs comprising porphyrins
INVENTOR(S): Dougherty, Thomas J., Grand Island, NY, United States
Potter, William R., Grand Island, NY, United States
Weishaupt, Kenneth R., Sloan, NY, United States

PATENT ASSIGNEE(S): Health Research, Inc., Buffalo, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5028621		19910702
APPLICATION INFO.:	US 1989-352774		19890516 (7)

DISCLAIMER DATE: 20040310
RELATED APPLN. INFO.: Continuation of Ser. No. US 1986-889829, filed on 24 Jul 1986, now patented, Pat. No. US 4866168, issued on 12 Sep 1989 which is a continuation of Ser. No. US 1984-609991, filed on 14 May 1984, now patented, Pat. No. US 4649151, issued on 10 Mar 1987 which is a continuation-in-part of Ser. No. US 1983-481345, filed on 1 Apr 1983, now abandoned which is a continuation-in-part of Ser. No. US 1982-424647, filed on 27 Sep 1982, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Raymond, Richard L.
LEGAL REPRESENTATIVE: Irell & Manella
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1,6
NUMBER OF DRAWINGS: 27 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT: 1409
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB To obtain tumor-selective, photosensitizing drugs useful in the localization of neoplastic tissue and treatment of abnormal neoplastic tissue such as tumors, one of two methods is used. In the first method, a hydrolyzed mixture of the products of reaction of hematoporphyrin with acetic acid and sulfuric acid is cycled through a microporous membrane system to exclude low molecular weight products. In the second method, drugs are synthesized or derived from other pyrrole compounds. The drugs (1) include two covalently bound groups, each with four rings, some of which are pyrroles such as phlorins, porphyrins, chlorins, substituted pyrroles, substituted chlorins or substituted phlorins, each group being arranged in a ring structure, connected covalently to another group and have a triplet energy state above 37.5 kilocalories per mole; (2) are soluble in water, forming an aggregate of over 10,000 molecular weight in water and have an affinity for each other compared to serum protein such that 10 to 100 percent remain self aggregated in serum protein; and (3) are lipophyllic and able to disaggregate and attach to cell plasma, nuclear membrane, mitochondria, lysosomes and tissue. The drug obtained by the first method has an empirical formula of approximately C.sub.68 H.sub.70 N.sub.8 O.sub.11 or C.sub.68 H.sub.66 N.sub.8 O.sub.11 Na.sub.4. Neoplastic tissue retains the drug after it has cleared normal tissues and illumination results in necrosis. Moreover, other photosensitizing materials may be combined with a carrier that enters undesirable tissues and cells of the reticular endothelial system such as macrophages. These photosensitizing materials: (1) must have a triplet energy state above 3.5 kilocalories per mole; (2) cannot be easily oxidized; and (3) not physically quench any required energy state. Preferably, this photosensitizing material should be lipophlic.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 5 OF 9 USPATFULL
ACCESSION NUMBER: 91:38300 USPATFULL
TITLE: Method to diagnose the presence or absence of tumor tissue
INVENTOR(S): Dougherty, Thomas J., Grand Island, NY, United States
Potter, William R., Grand Island, NY, United States
Weishaupt, Kenneth R., Sloan, NY, United States
PATENT ASSIGNEE(S): Health Research, Inc., Buffalo, NY, United States (U.S.

corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5015463		19910514
APPLICATION INFO.:	US 1990-515179		19900426 (7)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1989-352774, filed on 16 May 1989 which is a continuation of Ser. No. US 1986-889917, filed on 24 Jul 1986, now patented, Pat. No. US 4889129 And a continuation of Ser. No. US 1986-889829, filed on 24 Jul 1986, now patented, Pat. No. US 4866168 which is a division of Ser. No. US 1984-609991, filed on 14 May 1984, now patented, Pat. No. US 4649151 which is a continuation-in-part of Ser. No. US 1983-481345, filed on 1 Apr 1983, now abandoned which is a continuation-in-part of Ser. No. US 1982-424647, filed on 27 Sep 1982, now abandoned , said Ser. No. 889917 which is a division of Ser. No. 609991

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Raymond, Richard L.
LEGAL REPRESENTATIVE: Irell & Manella
NUMBER OF CLAIMS: 2
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 24 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT: 1318
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A photosensitizing composition prepared by recovering a portion of hematoporphyrin derivative which has aggregate weight of more than 10 kd is useful in locating tumor tissue to which this improved photosensitizing drug homes. In the invention method, the subject is administered the improved drug and sufficient time is allowed to pass to permit accumulation of the drug in tumor tissue. The subject is then illuminated at suspected sites with radiation capable of absorption by the improved drug and which radiation produces fluorescence by the drug. Detection of the intensity of fluorescence indicates the quantity of drug at the measured location and permits assessment as to whether a tumor is present at that location.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 6 OF 9 USPATFULL
ACCESSION NUMBER: 90:46158 USPATFULL
TITLE: Methods for treatment of tumors
INVENTOR(S): Dougherty, Thomas J., Grand Island, NY, United States
Potter, William R., Grand Island, NY, United States
Weishaupt, Kenneth R., Sloan, NY, United States
PATENT ASSIGNEE(S): Health Research, Inc., Buffalo, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4932934		19900612
APPLICATION INFO.:	US 1988-236603		19880824 (7)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1986-889829, filed on 24 Jul 1986, now patented, Pat. No. US 4866168 Continuation-in-part of Ser. No. US 1983-481345, filed on 1 Apr 1983, now abandoned Continuation-in-part of Ser. No. US 1982-424647, filed on 27 Sep 1982, now abandoned

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Raymond, Richard L.

LEGAL REPRESENTATIVE: Irell & Manella
NUMBER OF CLAIMS: 11
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 23 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT: 1347

AB To obtain tumor-selective, photosensitizing drugs useful in the localization of neoplastic tissue and treatment of abnormal neoplastic tissue such as tumors, one of two methods is used. In the first method, a hydrolyzed mixture of the products of reaction of hematoporphyrin with acetic acid and sulfuric acid is cycled through a microporous membrane system to exclude low molecular weight products. In the second method, drugs are synthesized or derived from other pyrrole compounds. The drugs: (1) include two covalently bound groups, each with four rings, some of which are pyrroles such as phlorins, porphyrins, chlorins, substituted pyrroles, substituted chlorins or substituted phlorins, each group being arranged in a ring structure, connected covalently to another group and have a triplet energy state above 37.5 kilocalories per mole; (2) are soluble in water, forming an aggregate of over 10,000 molecular weight in water and have an affinity for each other compared to serum protein such that 10 to 100 percent remain self aggregated in serum protein; and (3) are lipophillic and able to disaggregate and attach to cell plasma, nuclear membrane, mitochondria, lysosomes and tissue. The drug obtained by the first method has an empirical formula of approximately C.sub.68 H.sub.70 N.sub.8 O.sub.11 or C.sub.68 H.sub.66 N.sub.8 O.sub.11 Na.sub.4. Neoplastic tissue retains the drug after it has cleared normal tissues and illumination results in necrosis. Moreover, other photosensitizing materials may be combined with a carrier that enters undesirable tissues and cells of the reticular endothelial system such as macrophages. These photosensitizing materials: (1) must have a triplet energy state above 3.5 kilocalories per mole; (2) cannot be easily oxidized; and (3) not physically quench any required energy state. Preferably, this photosensitizing material should be lipophilic.

L17 ANSWER 7 OF 9 USPATFULL
ACCESSION NUMBER: 89:101513 USPATFULL
TITLE: Apparatus for treatment of tumors
INVENTOR(S): Dougherty, Thomas J., Grand Island, NY, United States
Potter, William R., Grand Island, NY, United States
Weishaupt, Kenneth R., Sloan, NY, United States
PATENT ASSIGNEE(S): Health Research, Inc., Buffalo, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4889129		19891226
APPLICATION INFO.:	US 1988-243163		19880908 (7)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1986-889917, filed on 24 Jul 1986, now abandoned which is a division of Ser. No. US 1984-609991, filed on 14 May 1984, now patented, Pat. No. US 4649151 which is a continuation-in-part of Ser. No. US 1983-481345, filed on 1 Apr 1983, now abandoned which is a continuation-in-part of Ser. No. US 1982-424647, filed on 27 Sep 1982, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Cohen, Lee S.
LEGAL REPRESENTATIVE: Irell & Manella
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 23 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT: 1335

AB To provide to and receive radiation from a photodynamic drug in

neoplastic tissue, a laser system transmits radiation through an interface into a radiation delivery system, which is in juxtaposition with neoplastic tissue containing a photodynamic drug. The laser system may be a single argon laser pumping a dye laser, two parallel sets of argon lasers pumping a dye laser, a krypton laser or a xenon laser. In addition to transmitting radiation from the laser to the delivery system, the interface system may: (1) direct a portion of the light back to the laser's power supply to control the intensity of the radiation emitted from the laser; and/or (2) receive light from the light conductors of the delivery system. The interface channels light to radiation sensing devices which are either from a beam splitter indicating the magnitude of the radiation delivered from the laser system to the radiation delivery system or radiation leaking through the light conductor. Luminescent light from the photodynamic drug is selected and provides an indication of drug density and in some embodiments depth of the activity.

L17 ANSWER 8 OF 9 USPATFULL

ACCESSION NUMBER:	89:76581 USPATFULL
TITLE:	Hematoporphyrin derivatives and process of preparing
INVENTOR(S):	Dougherty, Thomas J., Grand Island, NY, United States Potter, William R., Grand Island, NY, United States Weishaupt, Kenneth R., Sloan, NY, United States
PATENT ASSIGNEE(S):	Health Research, Inc., Buffalo, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4866168		19890912	
APPLICATION INFO.:	US 1986-889829		19860724	(6)
DISCLAIMER DATE:	20040310			
RELATED APPLN. INFO.:	Division of Ser. No. US 1984-609991, filed on 14 May 1984, now patented, Pat. No. US 4649151 which is a continuation-in-part of Ser. No. US 1983-481345, filed on 1 Apr 1983, now abandoned which is a continuation-in-part of Ser. No. US 1982-424647, filed on 27 Sep 1982, now abandoned			
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	Granted			
PRIMARY EXAMINER:	Raymond, Richard L.			
LEGAL REPRESENTATIVE:	Irell & Manella			
NUMBER OF CLAIMS:	10			
EXEMPLARY CLAIM:	1,10			
NUMBER OF DRAWINGS:	24 Drawing Figure(s); 15 Drawing Page(s)			
LINE COUNT:	1361			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB To obtain tumor-selective, photosensitizing drugs useful in the localization of neoplastic tissue and treatment of abnormal neoplastic tissue such as tumors, one of two methods is used. In the first method, a hydrolyzed mixture of the products of reaction of hematoporphyrin with acetic acid and sulfuric acid is cycled through a microporous membrane system to exclude low molecular weight products. In the second method, drugs are synthesized or derived from other pyrrole compounds. The drugs: (1) include two covalently bound groups, each with four rings, some of which are pyrroles such as phlorins, porphyrins, chlorins, substituted pyrroles, substituted chlorins or substituted phlorins, each group being arranged in a ring structure, connected covalently to another group and have a triplet energy state above 37.5 kilocalories per mole; (2) are soluble in water, forming an aggregate of over 10,000 molecular weight in water and have an affinity for each other compared to serum protein such that 10 to 100 percent remain self aggregated in serum protein; and (3) are lipophyllic and able to disaggregate and attach to cell plasma, nuclear membrane, mitochondria, lysosomes and

tissue. The drug obtained by the first method has an empirical formula of approximately C.sub.68 H.sub.70 N.sub.8 O.sub.11 or C.sub.68 H.sub.66 N.sub.8 O.sub.11 Na.sub.4. Neoplastic tissue retains the drug after it has cleared normal tissues and illumination results in necrosis. Moreover, other photosensitizing materials may be combined with a carrier that enters undesirable tissues and cells of the reticular endothelial system such as macrophages. These photosensitizing materials: (1) must have a triplet energy state above 3.5 kilocalories per mole; (2) cannot be easily oxidized; and (3) not physically quench any required energy state. Preferably, this photosensitizing material should be lipophlic.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 9 OF 9 USPATFULL

ACCESSION NUMBER:	87:16971 USPATFULL
TITLE:	Drugs comprising porphyrins
INVENTOR(S):	Dougherty, Thomas J., Grand Island, NY, United States Potter, William R., Grand Island, NY, United States Weishaupt, Kenneth R., Sloan, NY, United States
PATENT ASSIGNEE(S):	Health Research, Inc., Buffalo, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4649151		19870310
APPLICATION INFO.:	US 1984-609991		19840514 (6)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1983-481345, filed on 1 Apr 1983, now abandoned which is a continuation-in-part of Ser. No. US 1982-424647, filed on 27 Sep 1982, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Raymond, Richard L.		
LEGAL REPRESENTATIVE:	Carney, Vincent L.		
NUMBER OF CLAIMS:	8		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	24 Drawing Figure(s); 15 Drawing Page(s)		
LINE COUNT:	1347		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB To obtain tumor-selective, photosensitizing drugs useful in the localization of neoplastic tissue and treatment of abnormal neoplastic tissue such as tumors, one of two methods is used. In the first method, a hydrolyzed mixture of the products of reaction of hematoporphyrin with acetic acid and sulfuric acid is cycled through a microporous membrane system to exclude low molecular weight products. In the second method, drugs are synthesized or derived from other pyrrole compounds. The drugs: (1) include two covalently bound groups, each with four rings, some of which are pyrroles such as phlorins, porphyrins, chlorins, substituted pyrroles, substituted chlorins or substituted phlorins, each group being arranged in a ring structure, connected covalently to another group and have a triplet energy state above 37.5 kilocalories per mole; (2) are soluble in water, forming an aggregate of over 10,000 molecular weight in water and have an affinity for each other compared to serum protein such that 10 to 100 percent remain self aggregated in serum protein; and (3) are lipophyllic and able to disaggregate and attach to cell plasma, nuclear membrane, mitochondria, lysosomes and tissue. The drug obtained by the first method has an empirical formula of approximately C.sub.68 H.sub.70 N.sub.8 O.sub.11 or C.sub.68 H.sub.66 N.sub.8 O.sub.11 Na.sub.4.

L17 ANSWER 1 OF 9 PCTFULL COPYRIGHT 2003 Univentio
ACCESSION NUMBER: 1992003536 PCTFULL ED 20020513
TITLE (ENGLISH): AUTOTRANSPLANTATION OF SCHWANN CELLS TO PROMOTE NERVOUS SYSTEM REPAIR
TITLE (FRENCH): AUTOTRANSPLANTATION DE CELLULES DE SCHWANN FAVORISANT LA REPARATION DU SYSTEME NERVEUX
INVENTOR(S): BUNGE, Richard, P.; WOOD, Patrick, M.; KLEITMAN, Naomi; MORRISSEY, Thomas, K.
PATENT ASSIGNEE(S): UNIVERSITY OF MIAMI AND ITS SCHOOL OF MEDICINE
LANGUAGE OF PUBL.: English
DOCUMENT TYPE: Patent
PATENT INFORMATION:

	NUMBER	KIND	DATE
	WO 9203536	A1	19920305
DESIGNATED STATES	AT AU BB BE BF BG BJ BR CA CF CG CH CI CM CS DE DK ES FI FR GA GB GN GR HU IT JP KR LK LU MC MG ML MN MR MW NL NO PL RO SD SE SN SU TD TG		
APPLICATION INFO.:	WO 1991-US5817	A	19910815
PRIORITY INFO.:	US 1990-567,530		19900815

ABEN The present invention relates to methods of promoting nervous system repair comprising transplanting autologous Schwann cells into a region of nervous tissue injury. In particular embodiments of the invention, Schwann cells for autologous grafting may be harvested from a patient in need of such treatment and then propagated in culture. The present invention provides for cell culture methods which yield essentially pure populations of Schwann cells in substantial numbers which may preferably be derived from segments of adult peripheral nerve.

ABFR L'invention concerne des procedes favorisant la reparation du systeme nerveux et consistant a transplanter des cellules de Schwann autologues dans une region d'une lesion des tissus du systeme nerveux. Dans des modes particuliers de realisation de l'invention, des cellules de Schwann pour une greffe autologue peuvent etre prises chez un patient ayant besoin d'un tel traitement puis elles peuvent se propager en culture. La presente invention fournit des procedes de culture de cellules qui produisent essentiellement des populations pures de cellules de Schwann en quantite substantielle et qui peuvent etre derivees de preference de segments de nerfs peripheriques adultes.

L17 ANSWER 2 OF 9 USPATFULL
ACCESSION NUMBER: 93:54747 USPATFULL
TITLE: Treatment of tumors using chlorins
INVENTOR(S): Dougherty, Thomas J., Grand Island, NY, United States
Potter, William R., Grand Island, NY, United States
Weishaupt, Kenneth R., Sloan, NY, United States
PATENT ASSIGNEE(S): Health Research, Inc., Buffalo, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5225433		19930706	
APPLICATION INFO.:	US 1991-724749		19910702	(7)
DISCLAIMER DATE:	20040310			

RELATED APPLN. INFO.: Division of Ser. No. US 1990-624410, filed on 4 Dec 1990, now patented, Pat. No. US 5145863 which is a division of Ser. No. US 1989-352774, filed on 16 May

1989, now patented, Pat. No. US 5028261 which is a continuation of Ser. No. US 1986-889829, filed on 24 Jul 1986, now patented, Pat. No. US 4866168 which is a division of Ser. No. US 1984-609991, filed on 14 May 1984, now patented, Pat. No. US 4649151 which is a continuation-in-part of Ser. No. US 1983-481345, filed on 1 Apr 1983, now abandoned which is a continuation-in-part of Ser. No. US 1982-424647, filed on 27 Sep 1982, now abandoned

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Raymond, Richard L.
LEGAL REPRESENTATIVE: Mudd, James E., Dunn, Michael L.
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1,2
NUMBER OF DRAWINGS: 24 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT: 1393
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB To obtain tumor-selective, photosensitizing drugs useful in the localization of neoplastic tissue and treatment of abnormal neoplastic tissue such as tumors, one of two methods is used. In the first method, a hydrolyzed mixture of the products of reaction of hematoporphyrin with acetic acid and sulfuric acid is cycled through a microporous membrane system to exclude low molecular weight products. In the second method, drugs are synthesized or derived from other pyrrole compounds. The drugs: (1) include two covalently bound groups, each with four rings, some of which are pyrroles such as phlorins, porphyrins, chlorins, substituted pyrroles, substituted chlorins or substituted phlorins, each group being arranged in a ring structure, connected covalently to another group and have a triplet energy state above 37.5 kilocalories per mole; (2) are soluble in water, forming an aggregate of over 10,000 molecular weight in water and have an affinity for each other compared to serum protein such that 10 to 100 per cent remain self aggregated in serum protein; and (3) are lipophyllic and able to disaggregate and attach to cell plasma, nuclear membrane, mitochondria, lysosomes and tissue. The drug obtained by the first method has an empirical formula of approximately C.sub.68 H.sub.70 N.sub.8 O.sub.11 or C.sub.68 H.sub.66 N.sub.8 O.sub.11 Na.sub.4. Neoplastic tissue retains the drug after it has cleared normal tissues and illumination results in necrosis. Moreover, other photosensitizing materials may be combined with a carrier that enters undesirable tissues and cells of the reticular endothelial system such as macrophages. These photosensitizing materials: (1) must have a triplet energy state above 3.5 kilocalories per mole; (2) cannot be easily oxidized; and (3) not physically quench any required energy state. Preferably, this photosensitizing material should be li

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This invention was made with federal support under research grants CA 30840-01 and CA 16717 and contract No. 1-CM-97311, awarded by the National Career Institute, U.S. Department of Health and Human Services. The Government has certain rights to this invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 3 OF 9 USPATFULL
ACCESSION NUMBER: 92:74629 USPATFULL
TITLE: Method to destroy or impair target cells
INVENTOR(S): Dougherty, Thomas J., Grand Island, NY, United States
Potter, William R., Grand Island, NY, United States
Weishaupt, Kenneth R., Sloan, NY, United States
PATENT ASSIGNEE(S): Health Research, Inc., Buffalo, NY, United States (U.S. corporation)